

WHAT IS CLAIMED IS:

1. An automatic V-belt transmission comprising:
a drive pulley;
a driven pulley; and

5 a V-belt extending between the drive pulley and
the driven pulley,

wherein the drive pulley has:

a fixed sheave which is rigidly fixed
to a drive shaft of the drive pulley; and

10 a movable sheave which is movable on
the drive shaft in a direction of an axis of
the drive shaft,

wherein the fixed sheave and the movable sheave
include a conical pressure surface having an inclined angle
15 with respect to a surface perpendicular to the axis of the
drive shaft, respectively, and the conical pressure surface
of the fixed sheave and the conical pressure surface of the
movable sheave form a V-shaped groove of the drive pulley,
which opens radially outwardly, in which the movable sheave
20 is moved toward the fixed sheave by a propulsion generating
mechanism for the drive pulley as rotational speed of the
drive shaft increases, so that radius of contact of the
drive pulley with the V-belt increases,

wherein the conical pressure surface of one of
25 the fixed sheave and the movable sheave is formed to have

the inclined angle being constant from a radially inner part of the conical pressure surface to a radially outer part of the conical pressure surface, and

5 wherein the conical pressure surface of the other of the fixed sheave and the movable sheave is formed to have an angular turning boundary that the inclined angle varies thereon, in which the inclined angle of a radially inner part inside the angular turning boundary of the conical pressure surface is smaller than the inclined angle
10 of a radially outer part outside the angular turning boundary of the conical pressure surface, and in which an angular difference between the radially inner part of the conical pressure surface and a side edge surface of the V-belt is greater than an angular difference between the
15 radially outer part of the conical pressure surface and the side edge surface of the V-belt.

2. The automatic V-belt transmission as claimed in claim 1, wherein the one of the fixed sheave and the movable sheave is the movable sheave, and wherein the other
20 of the fixed sheave and the movable sheave is the fixed sheave.

3. The automatic V-belt transmission as claimed in claim 1, wherein the angular turning boundary of the conical pressure surface is provided in a vicinity of a
25 position at which a maximum width part of the V-belt

contacts the conical pressure surface when the V-belt and the drive pulley are at a position of maximum reduction in speed.

4. The automatic V-belt transmission as claimed in
5 claim 1, wherein the inclined angle of the radially outer part outside the angular turning boundary of the conical pressure surface of the other is equal to the inclined angle, being constant, of the conical pressure surface of the one.

10 5. The automatic V-belt transmission as claimed in claim 1, wherein the one of the fixed sheave and the movable sheave has a higher rigidity than a rigidity of the other of the fixed sheave and the movable sheave.

15 6. The automatic V-belt transmission as claimed in claim 5, wherein the one of the fixed sheave and the movable sheave is the fixed sheave, and wherein the other of the fixed sheave and the movable sheave is the movable sheave.